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(71) Applicant(s)

John Roger Gaskill
Stable Cottage, Driffield, CIRENCESTER, Glos,
GL7 5PZ, United Kingdom

(72) Inventor(s)

John Roger Gaskill

(74) Agent and/or Address for Service

John Roger Gaskill
Stable Cottage, Driffield, CIRENCESTER, Glos,
GL7 5PZ, United Kingdom

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FR 002679997 A1

(58) Field of Search

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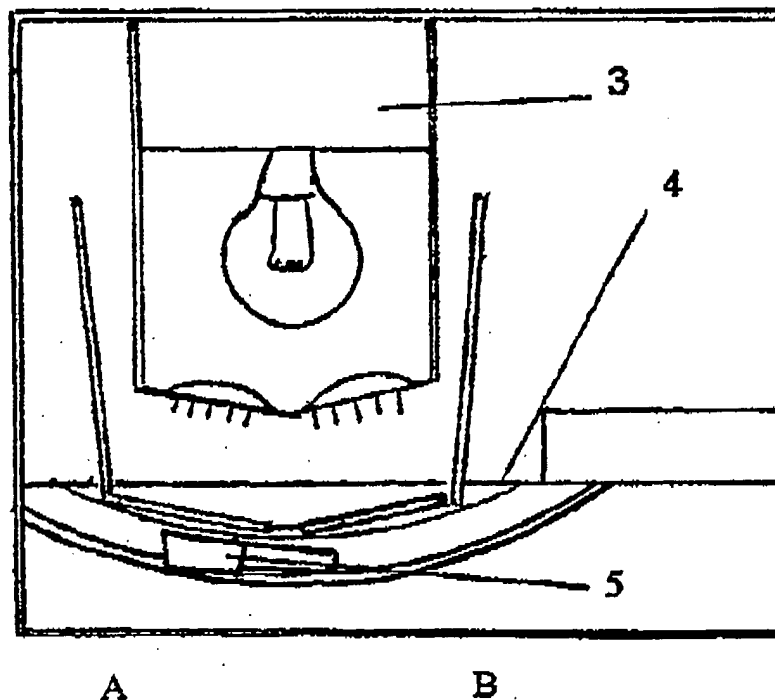
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Online database : WPI

(54) Electronic spectacle frame scanner

(57) An electronic spectacle frame scanner has a spectacle tray 4 in which spectacle frames to be measured are placed. A light source 3 above the frame causes a shadow to be cast on the translucent floor of the spectacle tray. An electronic scanner 5 scans the shadow image and sends signals to a computer where software converts the signals to the required dimensions and stores information in required formats.

Fig 1



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Fig 1

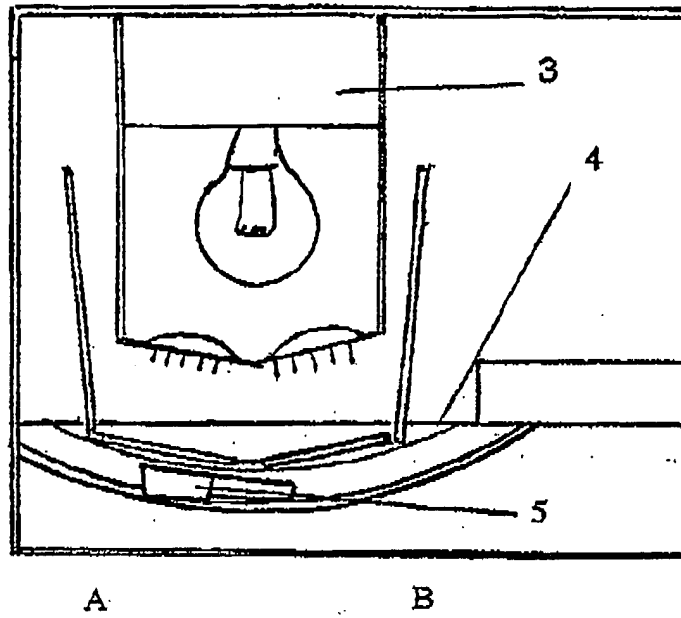


Fig 2

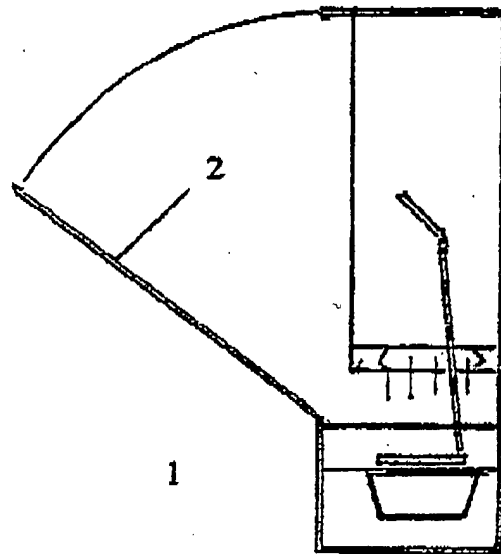
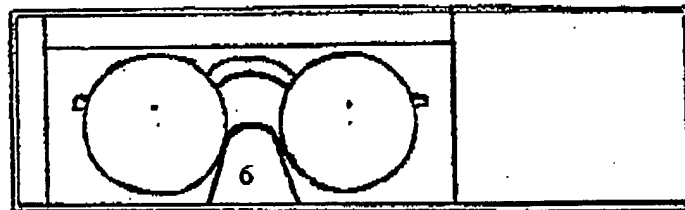


Fig 3



Electronic Spectacle Frame Scanner

1. This Invention relates to an Electronic Spectacle Frame Scanner.

2.1 For some time there have been available CNC lens edging machines for machining an uncut spectacle lens to the required shape to enable it to fit into a spectacle frame. These machines can incorporate or be linked to a frame tracer which records the shape of the eyepiece by mechanical means and stores the information on a computer so that it can be used by the CNC edger.

2.2 The shape information generated by the lens tracer can also be used by computer software used by opticians when dispensing spectacles to determine whether the size and characteristics of a lens being considered for a patient will fit a particular frame.

2.3 These mechanical devices are designed for laboratory and prescription house use. They can only measure the shape of one eyepiece at a time and do not measure the frame bridge size. They require any lens fitted to be removed before use.

3.1 According to the present invention there is a frame scanner which can provide the same information as the lens tracer described above but by measuring the dimensions of a shadow cast by the spectacle frame. There is a box containing a light source, a spectacle tray with a translucent floor and a mechanised electronic scanner for transmitting information to a computer.

3.2 In addition to the information produced by the mechanical devices the invention can measure the bridge size and the relational dimensions of the patient's pupil positions marked on lenses, or trial lenses already fitted to the frame. The invention does not require lenses to be removed before measuring.

4.1 A specific embodiment of the invention will now be described by way of an example with reference to the accompanying drawing in which:-

Figure 1 shows a front view of the scanner.

Figure 2 shows a side view of the scanner.

Figure 3 shows a plan view of the scanner.

4.2 Referring to the drawing the scanner comprises an enclosure 1, with hinged door 2. The enclosure contains a light source 3, a spectacle tray 4 and a mechanised electronic scanner 5.

4.3 The frames are placed front down on the spectacle tray where they are positioned by a spring loaded wedge 6. The door is closed, the light source switched on and the electronic scanner is moved from A to B capturing a digitised image.

4.4 This image is sent to a computer where software converts it to a variety of file formats depending on requirements.

Claims

1. An electronic spectacle frame scanner comprising an enclosure, a light source, a spectacle tray with a translucent base and a mechanised electronic scanner to measure spectacle frame and related dimensions from a shadow cast onto the translucent base substantially as described herein with reference to figures 1-3 of the attached drawing.

Relevant Technical Fields

(i) UK Cl (Ed.L) G1A AAJ

(ii) Int Cl (Ed.5) G01B

Search Examiner
R S CLARK

Date of completion of Search
22 DECEMBER 1993

Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

(ii) ONLINE DATABASE: WPI

Documents considered relevant following a search in respect of Claims :-
1

Categories of documents

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Category	Identity of document and relevant passages	Relevant to claim(s)
A	FR 2679997 A1 (BUCHMANN)	

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